

MEMORANDUM

To: Physicians and Primary Care Nurses,
Athabasca Health Authority,
Keewatin Yatthe Health Region, and
Mamawetan Churchill River Health Region

From: Dr. James Irvine, Medical Health Officer

Date: December 27, 2013

Re: New guidelines for the **Management of Skin and Soft Tissue Infections** where MRSA is prevalent

MRSA is a common pathogen in northern Saskatchewan. Compared to 'regular' Staph aureus, MRSA tends to cause more skin and soft tissue infections, can cause more severe infections in other body sites and can be more difficult to treat because of resistance. But 'regular' Staph aureus (MSSA) remains a serious pathogen and still tends to be more common than MRSA.

Community-associated MRSA (CA-MRSA) serotypes are the ones predominately isolated in Saskatchewan (66% of MRSA isolates), with even higher proportions in the north: AHA (95% of MRSA isolates), KYHR (86%) and MCRHR (90%). The information on the epidemiology of MRSA serotypes and antibiotic sensitivity has assisted us in the updating of the management of MRSA skin and soft tissue infections.

Attached are the updated guidelines for the **MANAGEMENT OF SKIN AND SOFT TISSUE INFECTIONS (SSTI)** in areas where MRSA is known to occur. This is an update to the previous guidance documents sent to all AHA, KYHR and MCRHR practitioners in 2005 and 2008.

In 2011 IDSA (Infectious Diseases Society of America) provided updated clinical practice guidelines and subsequently our local guidelines have been revised based on inputs from family medicine, pharmacy and public health. A group including Dr. Brenda Cholin, Dr. Julie Kryzanowski, Dr. Tessa Laubscher, Yvonne Shevchuk (with the College of Pharmacy, U of S) and myself have updated these guidelines based on these IDSA guidelines and on some of the information gained from the Northern Antibiotic Resistance Partnership research project which has provided good antibiotic sensitivity data for northern Saskatchewan. This includes information on the most appropriate topical antibiotic to use in northern Saskatchewan.

These guidelines are intended to guide empiric therapy in the community, i.e. **clinic, outpatient and ER settings.**

For patients **hospitalized with more severe infections** see the full IDSA guidelines (<http://cid.oxfordjournals.org/content/early/2011/01/04/cid.ciq146.full>) or consult a pharmacist and/or ID specialist.

The attached community setting guidelines consist of the following:

PAGE 1 - AN OVERVIEW:

- Main organisms to consider – Gr. A Strep and Staph aureus (MSSA and MRSA);
- appropriate management:
 - warm compresses
 - I&D – often adequate therapy without need for antibiotics
 - topical antibiotics – note comments about resistance in SK
 - antimicrobial therapy – **when is oral antibiotic treatment indicated** and **for what organism**: Strep, MSSA or MRSA.
- prevention
- decolonization

PAGE 2 - A PATHWAY to guide the physician/RNNP in a **3 STEP APPROACH** to an infection:

1. Assess the severity
2. Consider management options
3. Prevent the spread of infection

Appendix A Antibiotic Treatment of SSTI with NON-purulent cellulitis

- Treat for Gr. A Strep
- Consider treatment for Staph aureus (MSSA or MRSA)
- Provides options for one or two drug regimens

Appendix B Antibiotic Treatment of SSTI with purulent cellulitis, larger abscesses and other moderate infections

- Treat for Staph aureus (MSSA or MRSA)
- Choose one drug

Appendix C

- I&D procedure review
- Packing is not needed for simple cutaneous abscesses
- Swabs of non-purulent cellulitis are not recommended routinely

Appendix D INFECTION CONTROL IN THE CLINIC SETTING for Staph and other skin infections

Appendix E MRSA information sheet for Patients

PHYSICIANS AND RNNP ARE REMINDED:

- **Not all MRSA needs antibiotic treatment.** If the swab comes back positive for MRSA, **re-examine the wound before deciding if a change in treatment is warranted.** The patient may be getting better with the treatment you initially provided, or their immune system may have controlled the infection without the need for antibiotic treatment.
- **Follow-up swabs after the infection resolves** are not generally recommended in the community setting. Many people remain colonized for a long time. If the patient needs to be hospitalized in the future they will be screened on admission to see if they are still colonized.
- **Decolonization** is not generally recommended.
- **Prescribe antibiotics judiciously** in all situations to help reduce the development of resistance in all organisms.

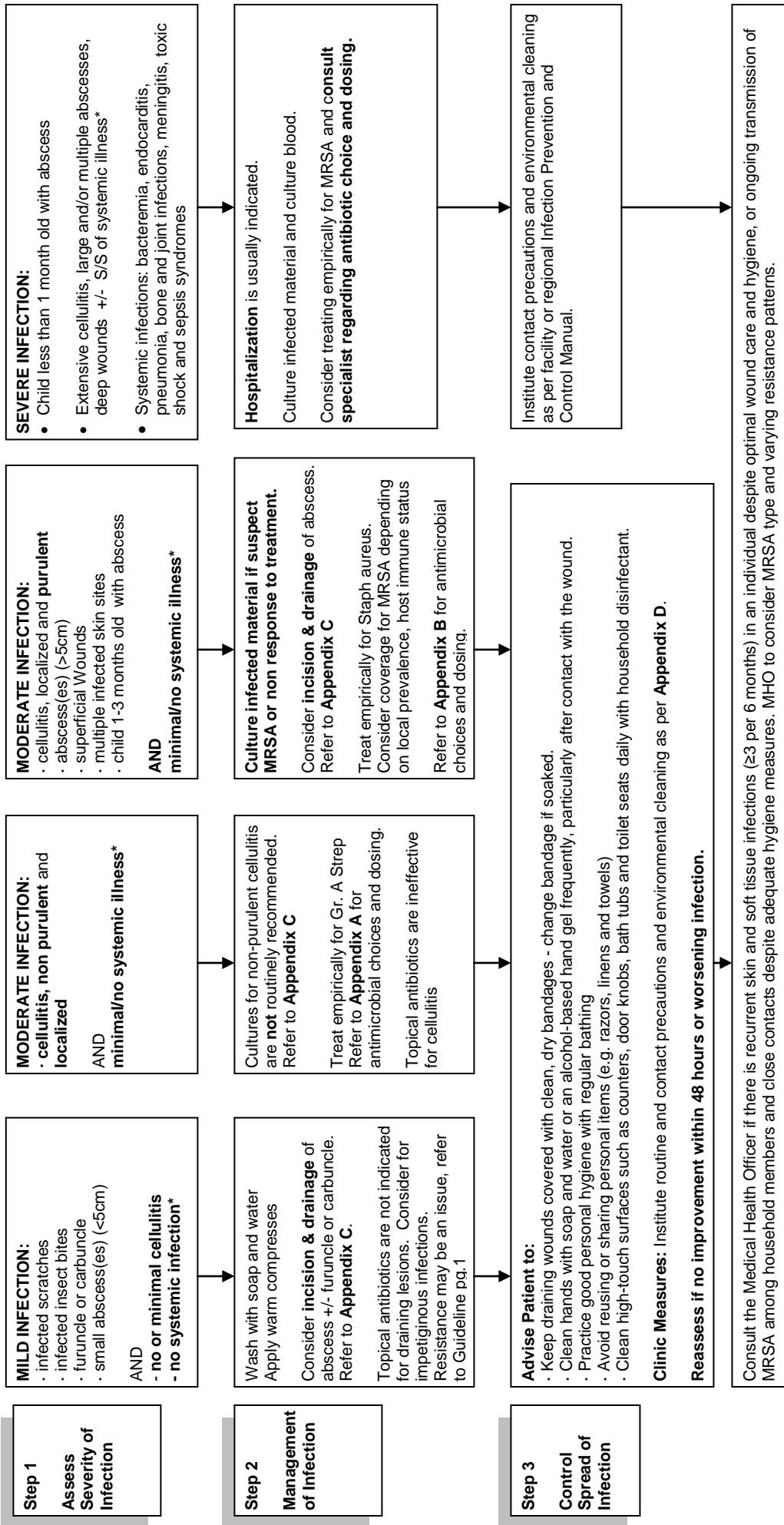
Northern Saskatchewan Guidelines (2014)

for SKIN AND SOFT TISSUE INFECTIONS including suspect MRSA in the COMMUNITY SETTING

- Methicillin sensitive Staphylococcus aureus (MSSA) and methicillin resistant Staph aureus (MRSA) have similar clinical presentations.
- This document provides guidance on when and how to treat skin and soft tissue infections empirically for MRSA.

Clinical Manifestations	<p>Mild to Moderate MRSA infections often present as skin infections such as pustules or boils that are red, painful, swollen and have pus or other drainage. May be described as a “spider bite”. Common sites of infection include areas of visible skin trauma such as cuts and abrasions, and areas of the body covered by hair.</p> <p>Severe MRSA infections involve deeper skin and soft-tissue infections, bacteremia, endocarditis, pneumonia, bone and joint infections, meningitis, toxic shock/sepsis syndromes.</p> <p>Consider Group A (beta-hemolytic) Streptococcal infection when there is lymphangitic streaking and regional lymphadenopathy.</p>	
Specimens for Culture	<p>Cultures are not recommended for non-purulent lesions. Culture when pus or purulent drainage is present AND there is suspicion for MRSA; or when there is systemic illness. Refer to <i>Appendix C</i>.</p>	
Management	Assess severity	<p>Refer to the Management Pathway for specific treatment of mild to moderate skin infections. For more severe infections, consider hospitalization and consultation with an infectious disease specialist regarding antimicrobial choice and dosing.</p>
	Furuncle or Carbuncle or Abscess	<p>Apply warm compresses to the area. Consider surgical incision and drainage (I&D) Antibiotics are often not necessary.</p>
	Topical Antibiotics	<p>Topical antibiotics are not indicated for draining lesions. Consider for impetiginous infections.</p> <p>In Saskatchewan Gr. A Strep demonstrates high resistance to fucidic acid and partial resistance to mupirocin. Some community associated MRSA types show high resistance to mupirocin.</p> <p>If topical antibiotic is indicated, consider polymixin b - bacitracin zinc – gramicidin combination (e.g. Polysporin Triple Antibiotic Ointment™)</p>
	Antimicrobial therapy	<p>Empiric therapy for non-purulent cellulitis should include coverage for Gr. A Strep.</p> <p>Antimicrobial therapy for Staphylococcal infection should be considered when there is:</p> <ul style="list-style-type: none"> • Severe or extensive disease or rapid progression • Signs and symptoms of systemic illness • Associated co-morbidities or immunosuppression • Extremes of age (very young ie < 3 months or very old) • Abscess in area difficult to drain completely • Associated septic phlebitis • Lack of response to incision and drainage alone <p>If an antibiotic is indicated, consider empiric therapy for MRSA when MRSA is known to circulate in your community and the patient has one of the above characteristics.</p>
Prevention and Control	<p>Advise Patient to:</p> <ul style="list-style-type: none"> • Keep draining wounds covered with clean, dry bandages • Practice good personal hygiene with regular bathing and hand washing • Avoid reusing or sharing personal items • Clean high-touch surfaces and common areas in their home daily with household disinfectant • If MRSA positive, offer patient copy of <i>Appendix E</i> 	<p>Clinic / Office Setting</p> <ul style="list-style-type: none"> • Use contact precautions • Disinfect all horizontal surfaces, examining tables, equipment and machines, etc. • Refer to <i>Appendix D</i> <p>Hospital and Long-Term Care Facilities: Refer to the PNHR Infection Prevention and Control Manual.</p>
Decolonization	<p>Please consult with the Medical Health Officer prior to initiating decolonization in a patient.</p> <p>Decolonization is generally not recommended in community settings because of lack of evidence of short and long term efficacy and potential to enhance antibiotic resistance</p> <p>Decolonization may be considered in selected cases if there is:</p> <ul style="list-style-type: none"> • recurrent skin and soft tissue infections (≥3 per 6 months) despite optimal wound care and hygiene • ongoing transmission among household members and other close contacts 	

Northern Saskatchewan MANAGEMENT PATHWAY (2014) pg.2 for SKIN AND SOFT TISSUE INFECTIONS including suspect MRSA in the COMMUNITY SETTING



*Signs and symptoms (S/S) of systemic infection include: fever, unstable vital signs, "toxic" presentation, streaking from the infection site, crepitus, necrosis, and rapid spread of inflammation over a period of hours.

APPENDIX A - Treatment for Skin and Soft Tissue Infections with NON-Purulent Cellulitis

Note: Non-purulent cellulitis is defined as cellulitis with no purulent drainage or exudates and no associated abscess.

TREAT ALL non-purulent cellulitis for Gr. A Streptococcus

CONSIDER coverage for MSSA or MRSA based on clinical judgment or if no response to initial therapy.

Treat patient with most appropriate antimicrobial* for 5 to 10 days, based on clinical judgment.

* Different types of MRSA can have different resistance profiles.

* Macrolides are not recommended due to concerns about increasing resistance to Gr. A Strep and MRSA.

* Doxycycline may not cover Gr. A Strep.

Treatment	Adult Dose	Pediatric Dose (do not exceed adult dose)	Important Notes
Coverage for Gr. A Strep alone:			
B-lactam (e.g.cephalexin or amoxicillin)	Cephalexin 500 mg PO QID or Amoxicillin 500 mg PO TID	Cephalexin: 50-100mg/kg/day PO divided q6h Amoxicillin: 50/mg/kg/day PO divided q8h	B-lactams do not cover MRSA
Coverage for Gr. A Strep and MSSA:			
B-lactam (e.g.cephalexin or cloxacillin)	Cephalexin 500 mg PO QID or Cloxacillin 500 mg PO QID	Cephalexin: 50-100mg/kg/day PO divided q6h Cloxacillin: 50mg/kg/day PO divided q6h	B-lactams do not cover MRSA Cloxacillin may cover Gr. A Strep
Coverage for Gr. A Strep and MRSA using two drugs:			
B-lactam (e.g. amoxicillin) AND	Amoxicillin: 500 mg PO TID	Amoxicillin: 50/mg/kg/day PO divided q8h	TMP-SMX: • Does not cover Gr. A Strep
TMP-SMX or	TMP-SMX: 1 DS tab PO BID** or	Trimethoprim 4-6 mg/kg/dose, Sulfamethoxazole 20-30 mg/kg/dose PO every 12 hours	• Do not use in pregnant women in the 3rd trimester of pregnancy • Do not use for children under 1 month of age. For 1-2 month old, consult paediatrician
a tetracycline	Doxycycline: 100 mg PO BID or Minocycline 200 mgx1, then 100 mg PO BID	Doxycycline: Less than or equal to 45 kg: 2 mg/kg/dose PO every 12 hours, Greater than 45 kg: give adult dose Minocycline: 4 mg/kg PO x 1, then 2 mg/kg/dose PO every 12 hours	Doxycycline and Minocycline: • Do NOT use in children under 8 years of age. • Do NOT use in pregnant women
Coverage for Gr. A Strep and MSSA or MRSA using one drug:			
Clindamycin	300-450 mg PO TID	10-13 mg/kg/dose PO every 6-8 hours, not to exceed 40 mg/kg/day	• MRSA demonstrates slightly greater resistance for clindamycin than for TMP-SMX. • C. difficile-associated disease occurs more frequently with this agent
Linezolid	600 mg PO BID	< 5yrs old: 10 mg/kg/dose PO every 8 hours 5-11yrs old: 20mg/kg/dose PO every 12 hours. Do not exceed 1200mg/day	More expensive than alternatives Please consult Specialist

** some guidelines suggest 1-2 TMP-SMX tablets. This recent reference indicates 2 tabs are NOT better than 1. Cadena, Jose, *et al*/ Dose of Trimethoprim-Sulfamethoxazole to Treat Skin and Skin Structure Infections Caused by Methicillin-Resistant *Staphylococcus aureus* ANTIMICROBIAL AGENTS AND CHEMOTHERAPY, Dec. 2011, p. 5430-5432

APPENDIX B – Treatment for Skin and Soft Tissue Infections with PURULENT Cellulitis, larger Abscess(es) or other moderate infections

Note: Purulent cellulitis is defined as cellulitis associated with purulent drainage or exudates in the absence of a drainable abscess.

Treat for Staph aureus:

- MSSA (methicillin sensitive Staph aureus) may be treated with a penicillinase resistant penicillin (cloxacillin) or first generation cephalosporin (cephalexin).
- Consider coverage for MRSA depending on regional prevalence of MRSA, clinical judgment, or if no response to initial therapy, using one of the antibiotics below. Choices below cover both MRSA and MSSA.

Treat patient with most appropriate antimicrobial* for 5 to 10 days, based on clinical judgment.

*Different types of MRSA can have different resistance profiles.

*Macrolides are not recommended due to concerns about increasing resistance to Gr. A Strep and MRSA.

For children < 3 months of age consult pediatrician or infectious disease specialist

Treatment	Adult Dose	Pediatric Dose (Do not exceed adult dose)	Important Notes
TMP-SMX	1 DS tab PO BID **	Trimethoprim: 4-6 mg/kg/dose, Sulfamethoxazole: 20-30 mg/kg/dose PO every 12 hours	Do NOT use in pregnant women in the 3rd trimester of pregnancy. Do NOT use for children under 1 month of age. For 1-2 month old, consult paediatrician
Doxycycline	100 mg PO BID	Less than or equal to 45 kg: 2 mg/kg/dose PO every 12 hours, Greater than 45 kg: give adult dose	Do NOT use in children under 8 years of age. Do NOT use in pregnant women.
Minocycline	200 mg ^{x1} , then 100 mg PO BID	4 mg/kg PO x 1, then 2 mg/kg/dose PO every 12 hours	Do NOT use in children under 8 years of age. Do NOT use in pregnant women.
Clindamycin	300-450 mg PO TID	10-13 mg/kg/dose PO every 6-8 hours, not to exceed 40 mg/kg/day	Provides coverage for both Gr. A Strep and MRSA. MRSA demonstrates slightly greater resistance for clindamycin than for TMP-SMX C. difficile-associated disease occurs more frequently with this agent
Linezolid	600 mg PO BID	< 5yrs old: 10 mg/kg/dose PO every 8 hrs 5-11yrs old: 20mg/kg/dose PO every 12 hrs. 12 yr and older: adult dose Do not exceed 1200mg/day	More expensive than alternatives Please consult Specialist

** some guidelines suggest 1-2 TMP-SMX tablets. This recent reference indicates 2 tabs are NOT better than 1. Cadena, Jose, et al/ Dose of Trimethoprim-Sulfamethoxazole To Treat Skin and Skin Structure Infections Caused by Methicillin-Resistant *Staphylococcus aureus* ANTIMICROBIAL AGENTS AND CHEMOTHERAPY, Dec. 2011, p. 5430–5432

APPENDIX C

A. INCISION AND DRAINAGE (I&D) PROCEDURE

Adapted from US Federal Bureau of Prisons MRSA CPG April 2011

Abscesses are localized infections of tissue marked by a collection of pus surrounded by inflamed tissue. Abscesses may be found in any area of the body; those requiring more urgent attention are found on the extremities, face, buttocks, breast, perianal area, axilla, groin. Abscesses begin when the normal skin barrier is breached, and microorganisms colonize the underlying tissues. Causative organisms commonly include *Streptococcus sp.*, *Staphylococcus sp.*, enteric bacteria (perianal abscesses), or a combination of anaerobic and gram-negative organisms.

Abscesses resolve by drainage. Smaller abscesses may resolve with conservative measures (warm soaks) to promote spontaneous drainage. Larger abscesses will require incision to drain them (I & D) as the increased inflammation, pus collection, and walling-off of the abscess cavity diminish the effectiveness of antibiotic treatment. Healing following I & D should progress from the inside of the abscess outward to the incision site. For larger abscesses this may require a gauze packing to promote healing from the inside outward (See Part B below: Role of Packing for an Abscess)

NOTE:

- Extremely large abscesses that require extensive incision, debridement, or irrigation are best done in operating room.
- Deep abscesses in very sensitive areas (labial, supralelevator, ischiorectal, perirectal) often require a general anesthetic to obtain proper exposure.
- Abscess in the hands or feet are best drained by a surgeon. Deep palmar abscesses are a surgical emergency.
- Abscesses in the triangle formed by the bridge of the nose and the corners of the mouth should generally be treated with warm compresses and aggressive antibiotic therapy.
- Abscesses located near major vessels must be differentiated from aneurysms before I & D is performed to avoid fatal hemorrhage. The distinction is made through aspiration with a large bore needle, or with ultrasound guidance.

PROCEDURE

- **The information below applies to an abscess within the skin and subcutaneous tissue that is palpable.**
 - **Obtain informed consent.**
 - **Use Routine/Standard Infection Control Precautions, and sterile technique.**
1. Infiltrate local anesthetic, allowing 2–3 minutes for anesthetic to take effect. Remember that tissue around an abscess is acidotic and local anesthetic is less effective. Consider doing a field block.
 2. Incise over abscess with the scalpel blade, cutting through the skin into the abscess cavity. Follow skin fold lines whenever possible while making the incision. The incision should be sufficiently wide to allow the abscess to drain and to prevent premature closure of the incision.
For smaller abscesses requiring incisions, a stab or cruciate incision should be adequate. Some refer to this as a puncture or stab technique since the operator inserts the tip of the scalpel directly into the center of the abscessed tissue without making a linear incision. If a culture is being obtained, use the culture swab to take culture of abscess contents, swabbing inside the abscess cavity—not from the superficial skin over the abscess.
 3. Use a hemostat or sterile cotton-tipped applicator to gently explore the abscess cavity to break up any loculations within the abscess.
 4. Loosely pack the abscess cavity with the packing (if indicated).
 5. Place gauze dressing over the wound, and tape in place. Topical antibiotic is not required.
 6. Schedule patient to return for review within 24–48 hours post-procedure. Depending upon the location and size of the abscess, arrange for the packing material to be changed daily.
 7. Pain from the site may require acetaminophen or nonsteroidal anti-inflammatory drugs; narcotics are rarely needed.

Following I & D of any abscess:

- Routine use of oral antibiotics after uncomplicated I & D is NOT recommended. Antibiotics have a role for patients with complicated abscesses (such as those with systemic symptoms), immunocompromised patients, and for abscesses with significant surrounding cellulitis or in areas difficult to drain, such as the hand.
- The site should be observed for signs of recollection of pus or cellulitis.

- Complications of an inadequately treated abscess include bacteremia and septicemia.
- In persons who are immunocompromised, particularly people with diabetes or peripheral arterial disease, an abscess on an extremity can be complicated by severe cellulitis or gangrene, with potential loss of the affected extremity.

Post-Procedure Patient Education.

- Patients should be instructed to watch for the following symptoms:
 - Recollection of pus in the abscess
 - Fever and chills
 - Increased pain and redness
 - Red streaks near the abscess
 - Increased swelling

References:

Dirksen DJ. Incision and drainage of an abscess. In: Pfenninger JL, Fowler GC, eds. *Procedures for primary care physicians*. St. Louis: Mosby; 2003:50–53.

Kronful R. Technique of incision and drainage for skin abscess. *UpToDate*. May 13, 2009;17.2

Singer AJ, Thode HC Jr. Systemic antibiotics after incision and drainage of simple abscesses: a meta-analysis. *Emerg Med J*. 2013 May 18.

B. ROLE OF PACKING FOR AN ABSCESS

Packing of wounds – there is no scientific evidence to support packing of wounds after I&D of a simple cutaneous abscess.

Studies (RCT) looking at outcomes from packing of simple abscesses are limited in number and of small size. O'Malley *et al* demonstrated no difference in outcomes in patients who had I&D, standard wound irrigation and packing or no packing, however the packing group reported more pain and use of analgesics. There were no significant differences between groups in need for second intervention at 48 hours.

Packing of cutaneous abscesses is not usually done in developing countries with no significant problems.

Clinical follow-up at 48 hours after I & D of simple cutaneous abscess is important whether wound is packed or not.

Reference:

O'Malley GF *et al*. Routine Packing of Simple Cutaneous Abscesses Is Painful and Probably Unnecessary *Academic Emergency Medicine* 2009; 16:470–473

C. CULTURING CELLULITIS

The diagnosis of cellulitis is based on the clinical features. Cellulitis associated with furuncles, carbuncles, or abscesses is usually caused by *S.aureus*. In contrast, cellulitis that is diffuse or unassociated with a defined portal is most commonly caused by streptococcal species.

- For outpatients with **non-purulent cellulitis**, **cultures** will usually grow normal skin flora and are therefore **not routinely recommended**.
 - Empirical therapy for infection due to beta-hemolytic streptococci is recommended.
 - Empirical coverage for MRSA may be considered in those with systemic signs and symptoms and is recommended in patients who do not respond to initial therapy.
- For outpatients with **purulent cellulitis** in the absence of a drainable abscess, **swab purulent drainage or exudate and send for culture**.
 - Empirical therapy for infection due to beta-hemolytic streptococci is not likely necessary.
 - Empirical therapy for MRSA may be considered pending culture results.

Other microbiological investigations including aspiration and punch biopsies are not routinely recommended because results are rarely positive. Blood cultures are recommended when there are signs and symptoms of systemic illness.

Reference:

Clinical Practice Guidelines by the Infectious Diseases Society of America for the Treatment of Methicillin-Resistant *Staphylococcus aureus* Infections in Adults and Children. *Clinical Infectious Diseases* 2011; 52:1-38

Appendix D

ROUTINE INFECTION CONTROL IN COMMUNITY AMBULATORY CARE CLINIC SETTINGS (Medical Clinics / Health Centers)

The following are recommended practices that will assist in reducing the transmission of all Staphylococcal and most other infections in the outpatient or clinic setting:

1. Hand-washing is the single most important method to prevent transmission of infectious agents.
 - Hands should be washed before and after each contact with a patient, body fluids, and contaminated or soiled materials; between dirty and clean procedures on the same patient; after removing gloves; after using the rest room and prior to leaving the work site.
 - Liquid soap in pump dispensers should be available at each sink and should be readily available in each patient examination area. Soap dispensers should not be ‘topped up’. Cartridge-type disposable units are recommended. Antibacterial soap is not necessary and bar soap should not be used.
 - Paper towels should be available and located close to each sink.
 - In locations where water is not available, waterless hand cleansers can be used. Disposable wet wipes are preferred if water is not available and hands are soiled.
 - Hand lotions should be available in pump-type dispensers and replaced when empty.
2. Gloves should be available for use by all health workers and should be worn when contact with blood, body fluids, secretions, excretions, and items contaminated with these fluids is anticipated. Gowns should be worn if body contact with infectious substances is anticipated and surgical masks and/or eye protection should be worn if coughs or splashes of infectious material are expected. Gloves and gowns should be changed between each patient, and hands washed after glove removal.
3. Toys in the waiting room should be disposable or washable, made of smooth, nonporous materials and of appropriate size and shape to avoid aspiration or other injuries. Regularly washing toys in a dishwasher at the end of each day or cleaning with a low level disinfectant (not phenolic) decreases microbial contamination. Toys should be removed during an outbreak of respiratory or gastrointestinal illnesses.
4. Examination rooms:
 - Covering the examination table with disposable paper, which is changed between each patient, decreases the risk for transmission of microbes. More thorough cleaning should be done if contamination is visible.
 - Routine cleaning of equipment, the examination table and work surfaces at the end of each day and when soiled, reduces the risk of patient to patient transmission.
 - Medical equipment in contact with mucous membranes or non-intact skin should be disposable or undergo high-level disinfection or sterilization.
 - Medical equipment in contact with intact skin (stethoscopes, blood pressure cuffs, etc.) should undergo low-level disinfection (disinfectant wipe or disinfectant detergent solution and paper towel). Optimally, these should be cleaned after each use. If this is not feasible, clean several times a day, if soiled or following every client with an infectious disease.
5. General housekeeping: offices and office equipment should be cleaned daily during the work-week. Surfaces should be cleaned with a low-level disinfectant detergent such as a quaternary ammonium or accelerated hydrogen peroxide product. Solutions must be mixed according to the label to avoid damaging surfaces and furnishings. Housekeeping staff should receive training on how to clean medical and office equipment. Establishing standard and procedures for cleaning will support a safe environment for the patient and physician.

INFECTION CONTROL FOR CLIENTS WITH POSSIBLE MRSA INFECTION

(COMMUNITY AMBULATORY CARE CLINIC SETTINGS)

For patients with suspected MRSA infections or uncontained drainage from skin lesions or wounds, in addition to routine precautions use the following contact transmission precautions:

1. See the patients at the end of the day if clinical condition allows particularly if patients are returning for follow-up visits or if triage has occurred by phone.
2. Quickly triage the patient out of common waiting areas- move this patient to an examining room. Ensure that the patient is physically separated from other patients when they cannot be triaged into an examining room.
3. Post a sign at the entrance of the room to notify staff that contact precautions are required and ensure gloves, a disposable gown and face protection are readily available if needed.
4. Wear gloves for any patient contact and wear a gown if close contact with the patient is likely. Wear a surgical mask and/or eye protection if splashes or vigorous coughing is possible. Wash your hands after removing your gloves, gown and mask.
5. To prevent self-inoculation, do not touch your nose or face until your hands are washed or wear a surgical mask which will help remind you not to touch your nose or face.
6. At the end of the office visit, all horizontal surfaces in the examining room that have been in contact with the patient, as well as equipment used to examine the patient such as the blood-pressure cuff, stethoscope, etc. must be wiped with a disinfectant detergent solution and paper towel or a disinfectant wipe. The disinfectant must remain wet on the surface for several minutes in order to kill all microorganisms.

REFERENCES AND RESOURCES:

1. Canadian Paediatric Society. Infectious Diseases and Immunization Committee (Moore DL, Principal Author). Infection control in paediatric office settings. Paediatr Child Health 2008. 13(5): 408-419 (Reaffirmed 2012) www.cps.ca/en/documents/position/Infection-control-in-paediatric-office
2. Canadian Committee on Antimicrobial Practices. Infection prevention and control practices: for long-term care, home and community care including health care offices and ambulatory clinics. June 2007. www.phac-aspc.gc.ca/amr-ram/ipcbp-pepci/pdf/amr-ram-eng.pdf
Note: this reference includes an audit/ checklist in Appendix III pg 45.
3. College of Physicians and Surgeons of Ontario. Infection Control in the Physician's Office. 2004 Edition. www.cpso.on.ca
4. Federal Bureau of Prisons. Clinical Practice Guidelines. Management of Methicillin-Resistant Staphylococcus aureus (MRSA) infections. April 2012. www.bop.gov/news/PDFs/mrsa.pdf
5. American Academy of Pediatrics. Committee on Infectious Diseases. Infection Prevention and Control in Pediatric Ambulatory Settings. Pediatrics 2007;120(3):650-665.



MRSA Information for Out-Patients

August 2013

What is MRSA?

- Staphylococcus *aureus* is a common bacteria found on skin, in the nose and mouth. It can cause skin, wound and other infections.
- MRSA (methicillin resistant staphylococcus *aureus*) is a staphylococcus bacteria which has become resistant to antibiotics normally used to treat staphylococcus infections.
- People with MRSA may not have symptoms but can still pass the disease to others. This is called “colonization”.

Who is at risk of getting MRSA?

People who are more at risk of getting MRSA infection include those who have:

- direct contact with someone with MRSA infection.
- taken many antibiotics
- open wounds
- been in the hospital recently or for a long time
- urinary catheters, IV's or other devices
- chronic health problems like diabetes or cancer

What are the symptoms of MRSA?

- Symptoms of skin or wound infection include pain, fever, swelling, redness or drainage
- Some people will have urinary tract (bladder) infections, pneumonia or other serious infections

How is MRSA treated?

People with MRSA may clear the infection on their own or they may be given antibiotics. Your doctor or nurse practitioner will decide the best treatment for you.

Only take antibiotics when they are given to you by your doctor or nurse. Take the medicine until it is all used up and do not share your medicine with others.

If MRSA is in a skin wound:

- Keep your wound covered with clean, dry bandages, particularly those wounds that drain or produce pus
- **Warm soaks and compresses:**
 - You may be instructed to soak your skin infection regularly in warm salt water or apply moist compresses for 20 minutes 3 times a day. You can add 1 teaspoon of salt to a liter of warm water and soak your sore.
 - If you can't soak the sore in the water, you can take a cloth, put it in the water, and then place the cloth over the sore (this is called a compress). Dunk the cloth in the water about every 5 minutes and put it back on the sore for a total of about 20 minutes.
 - Sometimes the doctor or nurse will drain the pus that can collect in a sore.
- After changing your bandages, carefully put them in plastic bag and put them in garbage, then wash your hands.
- If your wound cannot be covered adequately, you should not play sports or other activities requiring body contact until your wound is healed over and dry
- Advise anyone who comes in contact with you to wash their hands frequently with soap and water, especially those who help care for your wound.

Report any of the following to your doctor or nurse:

- Fever
- Increased pain or red streaks up from the infected area/wound
- Increased drainage or foul smell from wound/drainage

If MRSA is in your urine

- As with all bladder infections or vaginal infections- do not have sex until the infection is gone.
- If you do have sex, use a condom.
- Dispose of used toilet paper in the toilet and sanitary napkin products in the garbage and wash your hands

If MRSA is in your sputum

- Dispose of tissues into the garbage and immediately wash your hands

Will I always have MRSA?

- For most healthy people, your immune system will clear the infection from your body on its own or with the help of treatment prescribed by your doctor. This may take several weeks.
- People who have medical conditions such as diabetes that make them more susceptible to infection, may carry the bacteria a long time. If they get rid of the bacteria, they are more likely to get it again.

What can I do to clear this infection and keep from getting infected again?

- Follow the instructions of your health care provider
- Shower or bathe regularly
- Avoid sharing personal articles such as towels, washcloths, clothing, razors

How do I prevent MRSA from spreading to others?

- The best way to stop MRSA from spreading is to wash your hands. Keep yourself and your house clean.
- Liquid soap is better than bar soap because of less chance to spread the infection to others. Your health care provider may advise you to use antibacterial soaps at the time of your infection but it is best to use just regular liquid soap once your infection has cleared.

- Regularly wash your hands with soap and water for at least 20 seconds, especially:
 - After using the toilet
 - Before and after touching your wound, open sore or bandages
 - Before eating or preparing food
- It is important to keep your house clean
 - Toilets, sinks and surfaces should be cleaned every day with regular household cleaners. Household bleach is a simple sanitizer that can be made into a solution of 1 part bleach to 10 parts water.
 - Tubs, showers should be cleaned after each use
 - Normal laundry washing and drying will kill this bacteria
 - Dishes can be washed in a dishwasher or in a sink with regular dishwashing soap. They do not need to be separated from other dishes.
- Remind family members and other people in your house to wash their hands regularly. Visitors should wash their hands before leaving your house

Tell other health care providers:

- Tell any healthcare provider who treats you that you have had MRSA infection. This is especially important if you are to be admitted to hospital, to a long-term care unit or if you are going for day-surgery. You may still be carrying the MRSA bacteria on your body even if it is not causing you an infection.

For more information contact your Health Care provider or Public Health Nurse

Adopted from Prairie North Health Region

Quick Facts

- *MRSA is a staph bacteria resistant to commonly used antibiotics*
- *It is spread by contact with someone who has the infection or with contaminated surfaces*
 - *Hand washing is very important to prevent spread of disease.*